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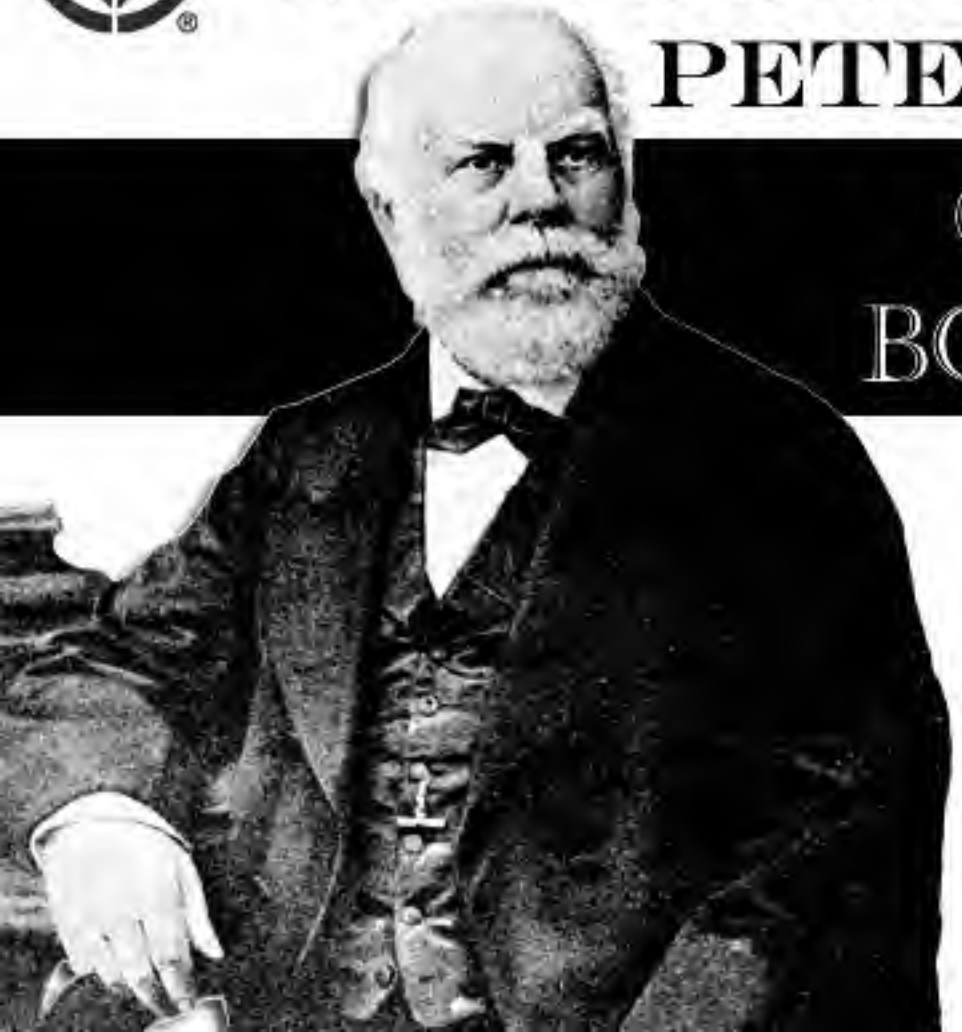

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1. pu 66

Cusuta Babylonica Aucher in herb
Boissier Cusc. p. 174 Tab 1 fig 1 DC Prod
C. peduncularis Kotschy ÷ schend. IX 453

This species is well distinguished by the truncate calyx and the almost entire scales. It was found near Bagdad by Aucher-Eloy (1420 x 3183 Th) the Tigris by Gr. Noë, & in Kurdistan by Kotschy (388.a)

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C.? elegans.

C. elegans Boiss & Balansa Diag. Pl. or. II. 3. 129

from the alpine regions of the Taurus (Balansa N. 708)

is scarcely distinguishable except by the papillose prettily rose colored flowers and the scales being a little more inserted and dentate, and shorter.

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3

Cucumis Abyssinica Rich. Abyss. II. 78.

C. macrostyla Decaisne — Hb. Mus Paris: seems to be well distinguished by the short thick lobes of the calyx & the very long ~~tab~~ narrow entire lobes of the Corolla; the small, off bifid scales and the very long, capillary styles. The corolla flowers the thick calyx and the bifid scales approach it to C. pseudoflora, while the slender style even surpasses that of Gilletiae. ~~A fine~~ The typical form was found on Kantara, ~~[illegible]~~ another with short corolla lobes was collected on Sonqueira shrubs — Another from Scopa ~~for Arabia by Botta (Mus Paris) I am inclined to refer here~~

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4. 1.

Cuscuta planiflora Tenore Syll.

Caule capillaceo glomeruli globosis multifloris densissima ~~arcte congestis~~ floribus sessilibus plerumque 5 fidis; calycis lobis plus minus (plusminus turgidis, intumescentibus) connatis tubum corollae aequantibus s. superantibus; laciniis tubum aequantibus acutiusculis s. acutis, ~~plerumque~~ apice (plus minus coniuatis) flavescentibus, erectis, demum horizontalitet patentibus; squamis adpressis seu incurvis, ovatis, truncatis s. bifidis; stylo (in) obliquante aequilongo ~~ovario~~ longiore quam ovarium ~~depressoo~~ globosum; capsula circumscissa, corolla marcescente ~~calyx~~ involuta; seminibus (asperatis) verrucosis.

~~Habitat~~ This in the warmer parts of Europe & Caspian, Northern Africa, the Canaries, and the Black Sea and through central Asia to the Himalaya Mountains.

This extremely variable species has been a puzzle to all botanists who paid attention to Cuscutae, and I am not ~~sure that~~ I entirely succeed with my attempt to unravel the difficulty. I have been obliged to unite a series of forms, the extremes of which are so widely different from one another, that only a careful study of the ever varying characters could have induced me not to keep them separate. With the 150 or 200 specimens before me from Europe, Africa and Asia I find it impossible to draw the ~~the~~ subspecific limits, ~~of~~ even of the subspecies — while six 6 or 8 specimens might be selected, apparently so different, that they might be used as types of well established species. On the other hand, I find it difficult to keep this species or complex of forms as I would prefer to call it, separate from some allied species, some forms approach

5300

to Cassiota breviflora, which might be considered a short styled form of our plant, others to C. falcatum others again are difficult to separate from the alpine form of C. Gottingen so that our species find it, all, in a manner almost the entire module of the subgenus. Synonymy for the species as I view it there are none and Tausch's name itself belongs properly speaking only to one of the forms; but a long list of synonyms will be found with the different subspecies.

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5

Cistus Palaestinae Boiss.

C. Palaestinus Boiss. Diagn. or. 1. 9. 86. (9: 114) (1849) Welp. Ann. III. 118.
C. alba var. Boiss. Diagn., Heldreich Sched.
C. Cretica Tournef. cor. 45.
C. mirantha Tineo (fide spec. auct.) in Gussone Flor. Sicul. Syn. II. 887. (1844) non Choisy Hbem (1841)
C. capillaris Reichenb. Pl. Crit. V. p. 64. (1827) sine descript.

This pretty little species, the glomerules of which have abt 2 leaves in diameter the flowers ½–1 l. long, the seeds 0.5 l. in diameter, is nearly allied to ~~Rockrose~~ planiflorus to which – under the name of C. albus the author himself subsequently referred it. But I believe it to be sufficiently well distinguished and to hold its rank with a number of other species of this genus, the limits of which are so difficult to discover.

Tournefort already distinguished it and the oldest specimens in the Europ. herbaria those of Sieber, come from Tournefort's old Candia the island of Candia or Crete. It is probably found around the Mediterranean in dry hilly grounds in very dry places ~~Mixed~~ as the small shrubby Labiatae of those regions etc – I have seen specimens from Palestine (Boissier) the Libanon, Blanche, Gaillardot, Attica Heldreich
Morea Bory de St Vincent
Crete (Libanus, Raulin
and other Grecian islands Raulin, Lefèvre (in part)
and from Sicily, Tineo

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5301 × central or premature flower of a glom. often the state

It is distinguished by the flowers being mostly topped off by 3 petals; × only × rarely expanded very large; lobes broad, unequal, ~~obviously~~ varying on back. Tip of corollin barely mucronate-tuberid; sides ~~[illegible]~~ with large ~~[illegible]~~ or broadly oval, somewhat thickened; styles short but longer than the st with large ovary.

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6 68.

~~Cuscuta planiflora~~

~~var brevistyla.~~

C. brevistyla A Br. in Sched. Kotschy

in Rich. Tent. flor. Abyss. II. 79

This form seems to be well enough distinguished by the short style, which is equal to the ovary and shorter than the capsule; but there being no other good character, the styles varying in length in the other forms of C. planiflora I feel ~~able~~ confident that it ought be united to that polymorphous species.

In some forms ~~[illegible]~~ and especially the original abyssinian ones I find the lobes of the corolla in fruit expanded, in others they are conniventes.

It has been found in Abyssinia (Schimper II. 1486) on the Sinai, Botta, in Southern Arabia (Hepper) in Persia Kotschy 580 Affghanistan, Griffith 686. Dr. and Thibet Hooker fil & Thomson

C. elegans Noë in Pl. 518. from the Rajmi with same plant

5302

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7 1

Cuscuta Europaea Lin

This well known and well characterized species extends from western Europe throughout Asia (apparently more in the higher portions of the country) to the Himalaya Mountains. ~~The southern~~ In Europe it is found in Sweden and Norway to the south of Italy; I have seen specimens from the neighborhood of Naples, but none from Sicily or Greece or Spain (south of the Pyrenees, or the north of Africa — It is found again in Asia Minor, Caucasus, Persia, and Thibet on the North side Mountains in general. Anecdotally it seems to have been found in America, in Mexico or Texas, by Bigelow, Torrey & H. Mechelet. This species has given rise to a good deal of discussion in regard to the presence or absence of scales; but though I have examined a number of specimens said to exhibit no scales, I have never failed to discover that organ. ~~From my~~ I must therefore say that it is always present, though ~~it is~~ almost always ~~it is so reduced that~~ so small and so long that are to escape detection especially in dry specimens, moistened or boiled. It is on the contrary easily found in the dry corolla, if not too much crushed in pressing; it then easily detaches itself and can be separated. The species C. Schlechtendiana Pfeiffer (the synonym of which is C. Europaea Hallands) therefore falls to the ground.

The obconic calyx with its thick fleshy base and thin rounded lobes, the thin corolla with obtuse lobes the very thin small bifid or truncate scales, the large ovary and corresponding large capsule with short thick style and broad base; the corolla and calyx enveloped in the capsule, not as most other species; nearly distinguishes it; nor does it vary as the other species do (perhaps only; still it is very

5303

18 Syn.: C. brachystyla C. Koch in Linnaea XXII. 747
5 C. halophyta Fries nov. Mant. I. 8.
C. halophila Summ. Veg. Stand I. 191.
10 C. hyalina Boeck. in sched.
13 C. Schkuhriana Opeitt. bot. Zeit. Oct. 1845. p. 673.
10 12. C. Segetum Asta in Giorn bot ital. II, 247 (the form or Uria
9 11 C. Uriae (Kirchleg.) Dem. Stud. p. 77
~~5~~ a. C. Vulgaris Pers Syn I. 289.
1. C. Major Bank. Pin 219. DC. Flor. fr. III. 644
DC prodr. IX. 452
8 C. monogyna Schmidt. fl. Boh. et in herb. normalis
3 C. tetrandra Moench meth. 461
9 C. tetraspermu Jan in ~~Pant~~ sched
~~10~~ 6. C. tubulosa Bast. delic p. 215.
18 C. capillaris Edgew. Linn Trans act XX. 68
is a more dusky glomerulate variation form
14 C. Epithisphyllum Bank. Thyr. Gartztg. 1844. Nro 4
4 C. Spinosissima Bank. ibid.
15 C. Europaeum nefrens Fries Summ Veg. I. p. 191.
16 C. halophyta pontica C. Koch Linn 19. p. 19
2. C. filiformis DC. Lam fl. fr II. 307
8 C. Ligustri - Arcescheoug in Nov. Comp. 417

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8

Cuscuta Kurdica n. sp.

~~C. alpina Hohenacker~~ Schedl pl. i. Kotsch

Caulibus capillaceis, glomerulis bracteis ovatis, acuminatis suffultis parvulis paucifloris;

floribus ante sessilibus plerumque 4-meris

Calycis fere ad basin 4-fidi lobis ovato-lanceolatis acutis crassiusculis, tubum corollae superantibus;

laciniis corollae ovato-lanceolatis, erectis s. conniventibus & demum saepe capsulam ante eiusdem inflexis, tubo fere longioribus.

— Stamina limbo ~~longe~~ multo brevioribus, antheris parvis subrotundis apiculatis, filamento subbrevioribus;

squamis hyalinis tenuissimis parvis basi tubo affixis, vix conspicuis; stylis tenuissimis ~~superantibus~~ mucronatis, ~~elongatis~~ erectis, inde dehiscentibus stigmatibus ovario paulo, capsula depressa multo brevioribus;

In montis Jara, Kurdistan, Kotschy Pl. Alepp. Kurd. No 388. b. sub nom. C. minor in herb. multis; Kurdistan D. Brandt in Herb. Kew.

A very peculiar plant, resembling in texture and habit the C. Europaea, ~~but with the stigmatic~~ with scales even more slender; distinguished by the shape of Calyx and Corolla, (the acute lobes & capsule) 1 lin. long; seeds large — in proportion, 0.5 – 0.6 lin. long;

On the other hand the acute lobes and short styles seem to approach it to C. brevistyla, from which however it is distinguished by the larger flowers with very thin texture.

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9

Cassuta Persica De Caisne in Herb Mus Par.

Caule filiformi;
Floribus ante glomeratis (sessilibus) bractea ovata s. orbiculata suffultis; ~~exterioribus abortivis~~;
Calycis campanulati tubi ovati apicibus corollae tubum superantibus; laciniis tubo vix longioribus ~~ovatis~~, dein patulis; ovatis abrupte acuminatis, dein papillosis
Stam. ~~multo~~ brevioribus. sparsim barbatis fauci inserti; filum corollae adpressum
Styl brev. subulati ovar. marginal. subappressi
see ~~Pl~~ notes and figure 268.

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10

Cuscuta Epilinum Weihe, Archiv des Apoth. VIII. p. 54. (1824)

Reichenb. ic. t. 693. DC. Prod IX. 492

C. densiflora, Soyer-Willem Ann. Soc. Lin. Paris I. p. 26. (1822)

only leg name; the description is given ib. IV p. 281 (1826). C. major Koch & Ziz, Cat. palat. p. 56. C. vulgaris Forskaeh

Epilinella cuscutoides, Pfeiff. Bot. Zeit. Oct. 1845.

Des Moulins, Etudes sur les Cuscutes p. 64

This well known and well characterized species of the flaxfields of Europe (Germ. France, Eng., Ireland, Spain, Sicily, Egypt HB. Bot. Bot. Petersburg) extends also into Asia, Egypt (Kralik, Figari) & the Canaries (Webb, Finlay) and has been collected in the U. States (Massachusetts, Oakes) in similar localities; on the banks of the Rhine it has been seen on Vicia Faba (Roeder in HB. Kirchoff). — It no doubt also occurs in India, and it is probable that Roxburgh's C. aggregata Flor. indica I. p. 447 is this plant "among flax of Bagdad, introduced into the bot. garden". — I have seen no indian specimens.

The characters relied on for a generic separation from Cuscuta are untenable or are founded on mistakes. The Calyx is deeply 5 lobed, ~~lobes less connate~~ more so than in most allied species but ~~more so than in some annuals from~~ not so separated. The capsule is (exactly constructed) as in the following species; the dissepiment is completely, till the maturity the lower and greater part ~~that part of~~ the upper edge, which adheres to the upper part of the capsule with its greater part are united into a very thin membrane but near the edges they are thicker and distinct, and between the styles a triangular portion of them ~~of meats~~ the base extends the point downwards (in some species short, in others extending to the base of the capsule) separates completely (leaving an outer opening (a commencement of a separation of both capsules of which the capsule consists) — which does not penetrate into the cavity of the capsule; this orifice between the styles is larger or smaller, ~~[illegible]~~ ~~interest~~ lets the seeds ~~[illegible]~~

The interstylar opening ~~[illegible]~~ ~~[illegible]~~ partitions it only at fullest maturity ~~by in other species~~ ~~[illegible]~~ by pressing the capsule ~~[illegible]~~ pulling it to the dissepiment on a sudden tearing to it.

The stigma at the time of flowering is almost twice as long as the style, (as thick ~~as that~~ at base) ~~and~~ slightly tapering to a blunt point; only in Fig. where the style ~~[illegible]~~ is more shrivelled

the stigma, ~~they~~ has the appearance of being ~~clubshaped~~ this part.

Such a structure would approach ~~it~~ to the Cacoutia of the Cape of good Hope; while, the very short style brings it very near to C. Arabica and its allies, to whom it evidently is more nearly ~~closely~~ allied. The flowers are though not pedicelled, like all of them; but most closely resile, — it is probably a native of Asia. — ~~and~~ ~~the~~ the structure of the ovary also

~~Capsule [illegible] but not~~

It is with some hesitation, that I leave this species at the head of the genus.

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5306

Cactaceae — Cactinae

Engelm., Observations on a family of Cactus plants, Annuaire botanique Cat[illegible]

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11

Cerastium Kotschyanum Boiss Diag. or. I. 7. 29.
non C. Kotschyi Desmoulin (= C. Epithymum var)

This species is distinguished by the large flowers (only 2" long), with acuminate lobes of the corolla, and with a large and loose, cupshaped calyx.

It has been found by Kotschy in Southern Persia (No 749). — A specimen collected by Szowits in Armenia in the herbarium of the St Petersburg Botanic Garden must also be referred here, though the flowers are a little smaller, and the calyx more deeply divided.

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12

Cerastia pulchella n. sp.

~~Paronychia paniflora~~ Laxis

floribus longius pedunculatis laxe paniculatis; calycis carnosi lobis ovatis acutis, tubum corollae aequantibus, laciniis corollae tubum subaequantibus, ovatis acutiusculis, ~~granulosis~~ papillosis, crenulatis, erectis v. patulis; staminibus brevioribus, antheris oblongo-ovatis; filamentis subulatis acquantibus; ovario angustis fauces acquantibus, fimbriatis inaequalibus, stylo filiformi stigmatibus ovario ovato aequantibus, aequantibus, capsula ~~brevior~~ dehiscente; semina foramine parvo basilari, ~~multo brevioribus~~. — in H. Hook. Kew. N. Afghanistan Griffith N. 688-691; in Alkaghi, Reganen, etc. — Stems & flowers especially the fleshy calyx bright red; inflorescence loose, few flowered; flowers abt 1/3 lin. distinguished from C. Kotschyana by the much smaller flowers with long pedicells; the deeply divided calyx, the ~~slightly acute~~ ovate, not acuminate lobes of the corolla. ~~In the Herb~~

In the Herb Hort. Bot. Petersb. I find two specimens one ~~collect~~ originally from Aitchison's Herbarium from Sarepta, the other from Hall. by Sievers on the Altai, which evidently belong here, though they have narrower and more deeply divided calyx lobes and rather more acute lobes of the corolla which often bifid; the former may be distinguished as var. afghana, the latter as var. altaica. It is not impossible that

5308

the Cattle maybe C. Asiatica of Pallas but his own specimen labeled thus in the Herb. H.P. Petersb. belongs to C. planiflora var Babylonica.

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13

Caso. pedicellata Ledeb. Fl. Altaica
I. 293. Sc. C. 234
DC. Prod. IX. 453 excl. syn.

This is the smallest of these sections; flowers scarcely a line long — of very ~~[illegible]~~ thin texture; scales small, truncate; styles almost connate at base, separating in the ripe fruit ~~with transverse opening~~, transversely to the dissepiment. ~~Capsule~~ Capsule separating from the base ~~with~~ "~~regularly~~" " " " a very large ~~[illegible]~~ ~~opening~~ ~~[illegible]~~ irregularly ~~opening~~ torn ~~[illegible]~~ commissure.

× I have examined the specimen on which Ledebour himself, and the Species in his own Herbarium; — It does not seem to have been collected by any subsequent traveller.

× It is more nearly allied to C. arenaria than with both of the species of this section, and particularly distinguished from it by its small flowers and the wide opening of the ripe capsule.

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14

Cassuta Arabica Desv. N. Arg. p. 165!
Choisy Cuscu p. 175. t. 1. f. 2. — DC Prod. IX. 453.
(non Wight): — Cassuta Arabica Desv. Et. p. 72
A well marked species, apparently the most common one in Egypt, and extending into Arabia.

It has been collected in Egypt by Bové (354), Author-Elog No. 1418, Dr. Fischer, Kralik, and ~~probably~~ before any one else by Lippi in Herb Vaillant, where it is mentioned as Cuscuta sulphurea colonis aegyptiacorum, flore niveo etc.; in Arabia (on the Sinai) Kappel collected the original specimen of Schimp. (No. 140) from it again there.

~~I distinguish two varieties~~

How it is possible to ascribe to it capitate stigmata, I can not see; nor is the capsule (barely exactly), as Desmoulins states, the cross however is easily accounted for as only the fully ripe capsule will separate from the base with a very small opening. ~~and the~~ The plant from the Sinai (the original C. Arabica) is distinguished by shorter pedicelli, denser glomerules, corolla-segments and larger ~~[illegible]~~ scales; the ~~aegyptiaca variety~~ var. aegyptiaca has longer pedicelli, rather obtuse anthers and smaller, often bifid scales, which sometimes seem to be wanting.

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Clitoria

~~I know only one representative of this~~ represented by a single species

This group, ~~which~~ is closely ~~joins~~ allied to Spiritiana ~~by the~~ but distinguished from it and all the other allies by having a real bracts capsule which falls off out of the persistent calyx entirely covered by the closely enveloping corolla. The styles are subulate, which therefore are usually much longer than the stigma.

5311

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15

C. capitata. Roxb.

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C. capitata Roxb. Fl. ind. I. 448. fide descr.
C. rosea Jacquemont in Herb. N. 1550 !

This pretty species forms an exception from all the true Cassumunars by having the ovate capsules, which fally off without opening ~~from the calyx~~ covered with the remains of the corolla, leaving the persistent calyx.

It is further distinguished by the subulate styles with tapering from a broad base, and ~~are tipped~~ are stigmatose only at the upper end, (i 1/3 or 1/4 of the whole length.

The deeply lacerate lobes of the calyx and corolla are covered with ~~cellular~~ hemispherical or subglobular moniliform papillae composed of numerous very minute cells, ~~[illegible]~~ Filaments very short, bearing an ovate or subglobose anther; scale in the low part of the tube of the corolla, not reaching to its middle, notched or bifid dentate; ~~capsule~~ ovoid with the subulate styles as long as, or very much shorter than the capsule; capsule covered with the tube of the corolla, the connivent lobes of which ~~are connivent and~~ crown the top, large intra stylar opening; Flowers over 1/2 l. long; seed ovoid 0.6 l. i long slightly ovoid.

India — great abundance on Costalasia jinarca" (Roxb) — On Artemisia on the Himalaya (Jacquem. N. 1550 — On Thymus, Himalaya 7-10,000 feet high, Dr Thomson — in Griffiths — On small herbs in Kumaon, 12.000 feet high Strachey & Winterbottom, N. 3. — H. Mac Rae

5312

(In Hooker ~~this~~ is a form of C. Lanceolata Affghanistan Griffith 686. e.)

Roxburgh's description agrees well enough with our plant (as far as it goes), ~~and it~~ which ~~this~~ is the only papillate Cassiope ~~with~~ in India so far as I know; but it seems to be far from common in India as he says, but on the contrary confined to the Mountainous districts and to an elevation from 6–12000 feet.

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